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OF THE

United States

OCTOBER TERM, 1986

MONOCLONAL ANTIBODIES, INC., Petitioner.

VS.

HYBRITECH, INC., Respondent.

REPLY BRIEF FOR PETITIONER TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

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ABBREVIATIONS

MAB Monoclonal Antibodies, Inc.

Hybritech Hybritech, Inc.

LJCRF La Jolla Cancer Research Foundation

Opp. Respondent Hybritech's Brief

"B" Petitioner's Appendix to its Reply Brief

1/m liters/mole



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INTRODUCTION

Hybritech's reliance upon the Federal Circuit's reference to the Rule 52(a) standards as evidence that those standards were in fact properly applied, is insufficient explanation of the specific examples of *de novo* review cited by MAB in its Petition. Misapplication of Rule 52(a), regardless of whether the proper standard was set forth, presents a truly unique situation where this Court's correction is needed.

Hybritech's arguments in support of the patentability of its claimed monoclonal sandwich assay inadequately respond to MAB's argument that the Federal Circuit, in applying the obviousness standard of patentability, has ignored this Court's precedents in *Hotchkiss* and *Graham*.

Furthermore, Hybritech has failed to justify the Federal Circuit's substitution of its own factual findings for those it found inadequate as well as its *de novo* finding on diligence. Diligence, an unusually stringent inquiry, is based substantially upon the *credibility* of the inventors. Such an inquiry should be decided, in the first instance, by the trial court, not the appellate court.

ARGUMENT

1

HYBRITECH IS CORRECT THAT MAB SEEKS REVIEW OF WHETHER THE FEDERAL CIRCUIT, IN FACT, FOLLOWED RULE 52(a)

MAB agrees with Hybritech that the Federal Circuit generally set forth the standards of review under Rule 52(a). Yet, the relevant inquiry is whether the Federal Circuit, albeit in good faith, in practice improperly applied those standards. As conceded by Hybritech, the Federal Circuit opinion is the best evidence of whether the Court gave appropriate deference to the

¹ Hybritech falsely asserts MAB argued that under Rule 52(a), if there is any evidence to support a finding of the trial court, an appellate court must sustain it. MAB correctly set forth the appropriate standards in its Petition, at p. 10.

trial court. It is apparent from the Federal Circuit's opinion that it misapplied Rule 52(a) by substituting its own findings on Hybritech's priority date, commercial success, and LJCRF's reduction to practice date for those of the trial court. (See Petition, pp. 11-18) Upon review of the decision it is apparent a de novo appellate review was conducted compelling Certiorari.

П

THE FEDERAL CIRCUIT DID NOT HOLD HYBRITECH HAD REDUCED THE CLAIMED INVENTION TO PRACTICE IN AUGUST, SEPTEMBER OR OCTOBER 1979

The Federal Circuit, reversing the trial court's findings, held Hybritech conceived the claimed invention by January, 1979 and was diligent up to its constructive reduction to practice on August 4, 1980 (A17-20). These holdings, on which the Federal Circuit granted Hybritech an early priority date, were critical as they eliminated major prior art relied on by the trial court in holding the patent invalid.²

Hybritech, realizing the Federal Circuit made a de novo finding supporting diligence, asserts an alternative ground existed on which the Federal Circuit could base its holding that Hybritech's date of invention (priority) preceded the work of LJCRF and Oi/Herzenberg. In effect, Hybritech is arguing that even if the Federal Circuit violated Rule 52(a), the outcome on the merits would not be affected.

Specifically, Hybritech argues that even if it were not diligent, the LJCRF and Oi/Herzenberg work which the Federal Circuit found to be prior art, was preceded by reductions to practice of the claimed invention at Hybritech in August, September and October, 1979. Contrary to Hybritech's assertions, the Federal

² The trial court held the claimed invention was not conceived or reduced to practice before May, 1980 (A40-41, 46, 48) and concluded the patent was invalid because it had already been invented by LJCRF in November, 1979 and would have been obvious in light of other prior art (A45, 55).

Circuit did not hold the claimed invention was reduced to practice in August, September or October, 1979. Rather, it summarized the trial testimony regarding these dates, with respect to diligence (A17-19), concluding, Hybritech was diligent up to its constructive reduction to practice by filing of the patent application (A19-20).

In any event, the August, September and October, 1979 experiments cannot establish reductions to practice, as a matter of law, since they do not possess every element and limitation of the claims. Correge v. Murphy, 705 F.2d 1326, 1329 (Fed. Cir. 1983). Specifically, the laboratory notebook entries for August, September and October, 1979, do not disclose the 108 1/m monoclonal antibody affinity limitation of the patent claims, alleged by Hybritech to be critical. In addition, the August and September entries do not measure antigen as the claims require. None of the entries depict assays for more than one antigen, hepatitis, and therefore none are generic to all antigens, as required by the claims (B1-B2).

The October 1979 entry neither describes a sandwich assay nor mentions monoclonals. As the Federal Circuit noted, Hybritech alleged this to be "a reduction to practice of the claimed invention, but fail[ed] to cite any related testimony or other evidence in support thereof." (A18)

The Federal Circuit did not, and could not "alternatively hold" Hybritech reduced the invention to practice in August, September or October, 1979. Accordingly, the Federal Circuit's finding on diligence and its reversal of the trial court's evaluation of the

³ Hybritech's statement, at p.19, that MAB's patent law expert, Ciotti, "admit[ted] Respondent's prior invention through an August 1979 reduction to practice using monoclonal antibodies... having the claimed affinity," is false. Rather, Mr. Ciotti testified that the August, 1979 experiment showed a reduction to practice of one assay—a hepatitis assay—and that it was not "the making of the invention in terms of, for instance, in Claim 19," since there was no appreciation that the assay could be applied to other antigens, as required by the claims. (See Ciotti testimony at A18, B1-2) Ciotti never testified as to antibody affinity in the August experiment.

evidence on Hybritech's date of invention in violation of Rule 52(a), are critical to evaluating whether the Hybritech patent is valid (A15-21).

Ш

THE FEDERAL CIRCUIT, IN VIOLATION OF RULE 52(a), OVERTURNED THE TRIAL COURT'S FINDINGS ON LJCRF'S PRIOR INVENTION BASED LARGELY ON AN INDEPENDENT CREDIBILITY DETERMINATION OF DR. RUOSLAHTI

Hybritech asserts the Federal Circuit did not reevaluate the trial court's credibility determination of Ruoslahti. Inconsistently, it sets forth the evidence relied on by the Federal Circuit, at A20-21, to discredit the trial court's credibility determination of Ruoslahti which related to whether LJCRF reduced the claimed invention to practice in November, 1979. Moreover, Hybritech admits the Federal Circuit reevaluated the trial court's credibility finding, by conceding the Federal Circuit "tested Ruoslahti's conclusory statement [that the LJCRF work was reduced to practice in November 1979] with inconsistencies in his own testimony, with the testimony of his co-workers, and with the documentary evidence." (Opp. at p.15) Further evidence of the Federal Circuit's independent credibility finding is its statement that an attempt to provoke an interference proceeding in the PTO by LJCRF was "evidence which bore upon the credibility of Ruoslahti's testimony."4 (A20)

The Federal Circuit concluded there was "inadequate factual basis for the district court's holding that LJCRF reduced the claimed invention to practice as early as November 1979...." (A20) The primary evidence on which the trial court relied was Ruoslahti's testimony, which the Federal Circuit implicitly found not credible, and Uotila's notebooks (A20).

⁴ Additional examples of the Federal Circuit's reinterpretation of the LJCRF evidence, contrary to the trial court, are set forth at pp. 15-17 of MAB's Petition.

Summarizing, the trial court considered the record in its entirety and, based on strong documentary and testimonial supporting evidence, held LJCRF had a November, 1979 reduction to practice date. The Federal Circuit reinterpreted the evidence and reevaluated witness credibility de novo, in violation of Rule 52(a), reversing the trial court's holding of LJCRF's reduction to practice. In doing so, the Federal Circuit improperly usurped the trial court's important fact-finding role.

Such conduct by an appellate court was condemned in *Inwood Laboratories, Inc. v. Ives Laboratories,* 456 U.S. 844, 856-857 (1982), as a violation of Rule 52(a). In *Inwood,* this Court reversed and remanded the appellate court's decision based on a *de novo* review of the evidence, which disregarded the trial court's findings or implicitly rejected them. *Id.*, 456 U.S. at 857, quoting in part, *United States v. Real Estate Boards,* 339 U.S. 485, 495 (1950).

IV

THE TRIAL COURT ACTED PROPERLY IN PREPARING ITS FINDINGS AND CONCLUSIONS OF LAW

As noted in our Petition, the trial court did not, as Hybritech asserts, merely adopt verbatim MAB's pretrial brief and proposed findings and conclusions. This is graphically illustrated in MAB's Appendix H, (A82-104), which shows the extensive, independently prepared portions of the trial court opinion. The parties submitted post-trial summaries of the evidence, with specific citations to the record, to safeguard against issuing findings and conclusions unsupported by the record. Moreover, the trial judge set forth detailed findings and conclusions, with citations to trial exhibits. Hybritech never objected to MAB's pretrial proposed findings.

⁵ Hybritech criticizes the trial court for insufficient citations to the record. However, as this Court is aware, it is common practice for trial court opinions not to include extensive cites to the record, as long as the findings and conclusions therein are reasoned and supported by the record, as they were here.

Contrary to Hybritech's assertion, this Court has not "condemned" the practice of a trial court's adoption of proposed findings and conclusions of law.

As this Court held in Anderson,

[e]ven when the trial judge adopts proposed findings verbatim, the findings are those of the court and may be reversed only if clearly erroneous.

Anderson v. Bessemer City, N.C., 470 U.S. 564, 572 (1985); United States v. Marine Bancorporation, 418 U.S. 602, 615, n. 13 (1974); United States v. El Paso Natural Gas Co., 376 U.S. 651, 656-657 (1964).

It is unreasonable for a trial court, with its busy schedule, to "reinvent the wheel" and therefore entirely appropriate for it to adopt portions of proposed findings and conclusions of law, with which it agrees. Accordingly, this Court has consistently acknowledged the propriety of adopting submitted findings and has mandated that appellate courts apply the standards of Rule 52(a) in review.

V

HYBRITECH DELIBERATELY MISCHARACTERIZES MAB'S PETITION AS AN ATTACK ON JUDGE RICH

Hybritech's accusations that MAB attacked the credibility of Judge Rich, author of the appellate decision, is an obvious ploy intended to direct this Court's attention away from the merits. In emphasizing the importance of this Court's review of the newly created Federal Circuit's application of Rule 52(a), MAB pointed to the unique difficulties that exist for judges on the Federal Circuit who made the transition in 1982 from the predecessor Court of Customs and Patent Appeals (CCPA), which had applied a de novo standard of review. In support, MAB cited a speech by Judge Rich, a judge on the CCPA for over 25 years, where he also acknowledged the different standards of review and the difficulty he personally realized in applying the deference mandated by Rule 52(a). Hybritech's false sensationalism is truly unfortunate.

MAB realizes and appreciates the tremendous contribution Judge Rich has made to patent law. But, the intent of the Federal Circuit judges, which obviously is to follow Rule 52(a) as is clearly stated in the Federal Circuit's opinion, is not the issue. Rather, the issue is whether the standards of Rule 52(a) are in fact being followed.

VI

HYBRITECH HAS ARGUED EVIDENCE, OUT OF LEGAL CONTEXT, IN AN ATTEMPT TO SUPPORT THE FEDERAL CIRCUIT'S HOLDING OF PATENT VALIDITY

A. That Monoclonal Sandwich Assays Are an Improvement Over the Then Commercially Available Polyclonal Tests Is Not Dispositive of Patentability

Hybritech refers to MAB's statements that the monoclonal sandwich assay has advantages over previously commercially available tests as evidence of patentability. (Opp. at 23) But, the proper inquiry regarding patentability is: what causes a monoclonal sandwich assay to be better than prior commercial products.

Evaluating improvements as evidencing patentability was explained by this Court in *Hotchkiss v. Greenwood*, 52 U.S. 248 (1851), wherein an improved doorknob was deemed better because of the inherent superiority of a newly substituted material. This Court concluded "this, of itself, can never be the subject of a patent." *Hotchkiss*, 52 U.S. at 266. (Petition, p.23, n.19)

The antithesis situation is shown in *United States v. Adams*, 383 U.S. 39 (1966), cited by Hybritech, wherein Adams invented the first practical water-activated battery. This Court, in affirming the validity of Adams' patent, considered the following factors. First, the prior art suggested that Adams' battery would not work. Second, Adams' battery had "wholly unexpectedly" operating advantages. 383 U.S. at 51.

Factually, Adams is far removed from the present case wherein, once Drs. Kohler and Milstein developed a method for mass producing monoclonal antibodies, it was suggested by the industry

that substituting monoclonals for polyclonals in existing assays would have significant advantages. Moreover, once monoclonals were substituted for polyclonals by Hybritech, MAB, and others in the field, the expected benefits were in fact realized. While admittedly an improvement over the polyclonal sandwich assay, no "wholly unexpectedly" results, as in *Adams*, were realized.

The trial court realized Hybritech's invention was based on a substitution of reagents, monoclonals for polyclonals (A38, 45). It then evaluated the assay's superiorities in light of the inherent properties of the substituted reagent (monoclonals) (A43, 45). The Federal Circuit's statement that, as a matter of law, such an inquiry is inappropriate (A28), is directly contrary to this Court's precedents, which were codified in § 103 of the present Patent Statute, and requires correction. (Petition, pp. 22-24)

B. The Trial Court Never Relied Upon an "Obvious to Try" Analysis as the Section 103 Standard of Patentability

Hybritech's repeated allegation that MAB is arguing "obvious to try" as the appropriate standard or test of patentability is false. Rather, MAB acknowledged the propriety of the trial court's inquiry into whether the claimed invention, a monoclonal sandwich assay, was suggested by the prior art.

The consideration for this Court is the appropriateness of the Federal Circuit's practice of ignoring this evidence and the evaluation thereof by the trial court by labelling it as "obvious to try" evidence. Yet, whether the prior art suggested the claimed invention, an analysis approved and recommended by the Federal Circuit, is substantively identical to the inquiry of whether, in light of the prior art, it would be obvious to try the claimed invention. Accordingly, evaluating whether prior art suggesting the claimed invention, and relied on by the trial court, should be given no weight on appeal simply by being termed "obvious to try" evidence, is an important reason why this Court should grant Certiorari in this case.

VII

THE FEDERAL CIRCUIT SHOULD HAVE REMANDED THE DILIGENCE ISSUE SINCE THE EVIDENCE DID NOT LEAD TO ONLY ONE CONCLUSION

Since diligence is based heavily on credibility evaluations requiring corroboration, and in light of the fact that the parties vigorously contested that evidence, the Federal Circuit should have remanded the issue of diligence. Hybritech incorrectly argues it was appropriate for the Federal Circuit to make a de novo finding on diligence (A19), because the record will permit only one conclusion.

In order to establish diligence, an inventor must account for the entire critical period (starting any time after conception of the claimed invention but before the effective date of the prior art and ending in reduction to practice) by showing either activity aimed at reduction to practice or legally adequate excuses for inactivity. At trial, Hybritech entered into evidence numerous experiments, primarily in the form of notebooks, carried out between January, 1979, and May, 1980 as evidence of conception or reduction to practice. MAB disputed Hybritech's allegations, even of conception, since Hybritech did not establish possession of each and every element of the claimed invention prior to May, 1980. By strenuously arguing there was no conception prior to May 1980, long after the effective date of the most pertinent prior art, MAB also implicitly argued there was no diligence prior to May, 1980. The trial court agreed. Thus, Hybritech's assertion that MAB did not dispute diligence during the critical period is incorrect.6

Hybritech admits that inventor David testified for approximately a day and a half explaining and describing the documents it submitted to establish conception, diligence and reduction to

⁶ Hybritech's criticism of MAB for not asking for a remand before the Federal Circuit completely ignores the fact that Hybritech appealed and MAB only requested, as was entirely appropriate, that the court affirm its victory below. To suggest MAB had a duty to request a remand on appeal, in light of the fact it was the prevailing party before the trial court, is absurd.

practice. The documentary evidence introduced was necessary to support David's testimony of priority which is inherently "highly suspect". Bell Tel. Laboratories, Inc. v. Hughes Aircraft, Co., 564 F. 2d 654, 657 (3rd Cir. 1977), cert. den. 435 U.S. 924 (1978). In other words, "the function of the corroborating evidence is to assist the fact finder in deciding whether the inventor's testimony is credible." Id. (Emphasis added).

The Federal Circuit's finding of diligence, spanning a 19-month period (from Janurary, 1979 to filing in August, 1980), is especially surprising in light of its own case law precedents where much shorter periods of time were deemed too long. In re Mulder, 716 F.2d 1542, 1545 (Fed. Cir. 1983) (the court held that diligence needed to be established for even a two-day period); Gould v. Schawlow, 363 F.2d 908, 920-921 (CCPA 1966) (failed to prove diligence over an 8 month period); Brown v. Barton, 102 F.2d 193, 198 (CCPA 1939) (failed to prove diligence over a 5 week period); Ireland v. Smith 97 F.2d 95, 97 (CCPA 1938) (failed to prove diligence over a 25 day period).

CONCLUSION

For the reasons set forth in MAB's Petition and Reply Briefs, this case presents a unique combination of important substantive and procedural issues requiring review by this Court.

Dated: March 20, 1987

Respectfully submitted,

FLEHR, HOHBACH, TEST, ALBRITTON & HERBERT

By DAVID J. BREZNER
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Ciotti-Direct

There was a monoclonal, namely, identified in here as Number 68, which was substituting all the various combinations with the polyclonal and without it. And it indicates that counts were read.

There is no indication that there was ever any antigen measured. And the part bracketed in orange there requires the measuring either of the amount of labelled antibody bound or the amount of unreacted labelled antibody. So there is no measuring of any amount here.

Also, of course, it is limited to—it is limited to hepatitis antigen.

And without a generic conception, it would just be merely a—if it did work for its intended purpose—which I would assume for the purposes of discussion—it would be a reduction to practice of one embodiment.

And without a corresponding generic conception, I don't think it could be held to be the making of the invention in terms of, for instance, in Claim 19.

- Q. What do you mean by generic conception, and why is that required?
- A. One must conceive of the invention in terms of which it is claimed. As I illustrated in the typical situation where inventors make inventions, they are encouraged to write down the invention in very generic terms.

If they do not do that—for instance, there is no reason why Hybritech couldn't invent, for instance, a monoclonal antibody assay for hepatitis and limit it to hepatitis, and that would be it.

And that's all this really does is it shows a reduction to practice of a hepatitis assay. If there is no appreciation that it can be applied to other antigens, then it is limited to that.

That's why you need the additional conception of something generic in order to be able to say this is that invention. It is just an embodiment of that invention.

Ciotti-Direct

- Q. Thank you. Do you have an opinion on the issue of obviousness, 103 obviousness, in this case?
 - A. Yes, I do.
 - Q. What is that opinion?
 - A. I believe that the claimed invention is obvious under 103.
 - Q. What are the reasons for that opinion, Mr. Ciotti?
- A. Well, there are quite a few reasons. There are several pieces of art that were not before the Patent Office.

I also think that—well, one was cited in the patent, but there is no indication the examiner ever looked at it.

- Q. You feel there was more relevant art than what was before the examiner that existed?
 - A. Yes.
 - Q. Could you please explain that?
 - A. I think the Oi and Herzenberg article is more relevant.

